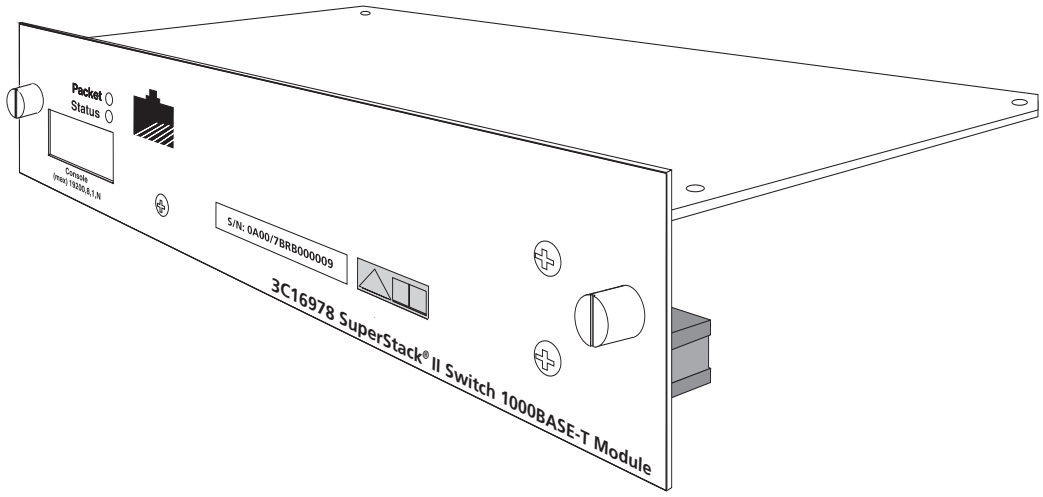
SuperStack II



SuperStack® II Switch 1000BASE-T Module (3C16978)
User Guide

INTRODUCTION

The SuperStack II Switch 1000BASE-T Module provides a Gigabit Ethernet module for the SuperStack II Switch 1100 (12 and 24 port), SuperStack II Switch 3300 (12 and 24 port), and SuperStack II Switch 3300 FX.

The module requires management software version 2.42 or later to be installed on the Switch. For instructions on upgrading management software, refer to the documentation supplied with your Switch.

The module conforms to the full duplex implementation of the Gigabit Ethernet standard IEEE 802.3ab. The module supports a 100 m cable segment, using Category 5 copper cabling and RJ-45 connectors, as defined in the ANSI/TIA/EIA-568-A Commercial Building Telecommunications Cabling Standard, and in the 1000BASE-T standard.

A white paper which describes 1000BASE-T technology and cabling requirements in more detail is available from the 3Com® Web site.

LEDs

You can gather information about the status of the module and its packet activity using LEDs on the front of the Switch and on the module itself.

LED	Color	Indicates
Expansion Module Port Status LEDs (located on the front of the Switch):		
Packet	Yellow	Packets are being transmitted/received on the module port.
Status	Yellow	A valid module is installed.
	Yellow flashing	An unrecognized or faulty module is installed.
	Off	No module is installed.
Module Status LEDs (located on the module at the rear of the Switch):		
Packet	Yellow	Packets are being transmitted/received on the module port.
Status	Green	Link present and port enabled.
	Green flashing	Link present but port disabled.
	Off	Link failed or disconnected.

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INSTALLATION AND REMOVAL

***WARNING**: Installation and removal of the module must be carried out by qualified personnel only. Before installing the module into a unit, you must first disconnect the unit from the mains power supply. For full safety instructions, refer to the user guide that accompanies the unit.*

***AVERTISSEMENT**: Confiez l'installation et la dépose de ce module à un personnel qualifié. Avant d'installer ce module dans un groupe, vous devez au préalable débrancher ce groupe de l'alimentation secteur. Pour prendre connaissance des consignes complètes de sécurité, consultez le guide utilisateur qui accompagne ce groupe.*

***WARNHINWEIS**: Die Installation und der Ausbau des Moduls darf nur durch Fachpersonal erfolgen. Vor dem Installieren des Moduls in einem Gerät muß zuerst der Netzstecker des Geräts abgezogen werden. Vollständige Sicherheitsanweisungen sind dem Benutzerhandbuch des Geräts zu entnehmen.*

***WARNING**: **RJ-45 Port.** This is a shielded RJ-45 data socket. It cannot be used as a telephone socket. Only connect RJ-45 data connectors to this socket.*

Either shielded or unshielded data cables with shielded or unshielded jacks can be connected to this data socket.

***AVERTISSEMENT: Le port RJ-45.** Il s'agit d'une prise femelle blindée de données RJ-45. Vous ne pouvez pas l'utiliser comme prise de téléphone. Branchez uniquement des connecteurs de données RJ-45 sur cette prise femelle.*

Les câbles de données blindés ou non blindés, avec les jacks blindés ou non blindés, l'un ou l'autre, peuvent être branchés à cette prise de courant de données.

WARNHINWEIS: ***RJ-45 Ports. RJ-45-Anschluß.** Dies ist eine abgeschirmte RJ-45-Datenbuchsen. Sie kann nicht als Telefonanschlußbuchsen verwendet werden. An diesen Buchsen dürfen nur RJ-45-Datenstecker angeschlossen werden.*

Dieser Datenstecker kann entweder mit abgeschirmten oder unabgeschirmten Datenkabeln mit abgeschirmten oder unabgeschirmten Klinkensteckern verbunden werden.

Handling the Module

The module can be easily damaged by electrostatic discharge. To prevent damage, observe the following:

- Do not remove the module from its packaging until you are ready to install it into a Switch.
- Do not touch any of the pins, connections or components on the module.
- Handle the module only by its edges and front panel.
- Always wear an anti-static wristband connected to a suitable earth point.
- Always store or transport modules in anti-static packaging.

Installing the Module into a Switch

***CAUTION:** When a module is installed into a Switch, the Switch can only support one port trunk, instead of two. If you have two port trunks configured on your Switch, remove the second one before installing the module. If you do not remove the second port trunk, both port trunks are automatically removed.*

***CAUTION:** If the module replaces a 1000BASE-SX or a 1000BASE-LX module, all user settings are retained, with the exception of auto-negotiation, which is always enabled. If the 1000BASE-T module replaces any other type of module, all user settings return to their default values.*

1. Ensure that the Switch is disconnected from the mains power supply and that you are wearing an anti-static wristband connected to a suitable earth point.
2. Place the Switch on a flat surface. Using a suitable screwdriver, remove the blanking plate from the rear of the Switch. Do not remove any other screws from the rear of the Switch.
3. Keep the blanking plate and screws in a safe place. If you remove the module at any time, you must replace the blanking plate to prevent dust and debris entering the Switch and to aid the circulation of cooling air.
4. Hold the module so that the text on the front panel is upright, and insert it into the Switch, ensuring the connectors are fully engaged. Tighten the two captive thumbscrews securing the module.
5. Install the module:
   a. Ensure that the Switch is turned on.
   b. Plug the RJ-45 connector on the cable into the RJ-45 socket on the module.
   c. Connect the other end of the cable segment to a device fitted with a 1000BASE-T Gigabit Ethernet connection.
6. Check the LEDs on the front of the Switch to ensure that the module is operating correctly. Refer to "LEDs" on page 1 for more information.

Removing the Module from a Switch

1. Ensure that the power supply and connection cables are disconnected from the Switch.
2. Place the Switch on a flat surface. Undo the two captive thumbscrews securing the module into the Switch. Do not remove any other screws from the Switch.
3. If you are not fitting another module immediately, you must replace the blanking plate to ensure that dust and debris do not enter the Switch and to aid the circulation of cooling air.

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Managing the Module

The module requires management software version 2.42 or later to be installed on the Switch. For instructions on upgrading management software, refer to the documentation supplied with your Switch.

Support for the management software is supplied by 3Com Transcend® Network Control Services.

When the module is installed in a suitable Switch, the Switch interfaces contain features to monitor the auto-negotiation system specified in the IEEE 802.3 Ethernet standard. This system allows the module port to automatically detect the flow control setting of a Gigabit Ethernet link.

The Current Flow Control field in the Web interface displays the method of flow control currently used by the module port. If auto-negotiation is not yet complete, `Not Determined` *is displayed.*

It is not possible to disable the auto-negotiation system through either the Web or the Command Line Interface. An error message is displayed if you try to disable auto-negotiation on the module through the Command Line Interface.

The module port has restricted functionality — for details, see "Module Port Restrictions" below. As a consequence, the Port Setup page for the port does not contain all the standard listboxes.

Module Port Restrictions

When using the module port, note the following:

- The port only operates in full duplex.
- The port only supports full duplex flow control in symmetrical mode, as defined by the Gigabit Ethernet standard. You cannot disable or alter this mode.
- The port only supports the Store and Forward forwarding mode.
- The port does not support PACE.
- You cannot manage the port using the Internetwork Packet Exchange protocol (IPX).
- The port cannot be part of a port trunk.
- The port does not support VLT tagging.
- You cannot create a resilient link pair that includes the port and another port that uses VLT tagging.
- You cannot disable auto-negotiation in the module.
- You can only restart auto-negotiation using SNMP, and not from the Web interface or from the Command Line Interface.

For information on other module port restrictions, refer to the documentation supplied with your Switch.

Problem Solving

If you suspect a problem, carry out these steps *before* contacting your supplier:

- Ensure that the Switch in which the module is fitted is turned on.
- Ensure that the module is correctly installed in the Switch.
- Ensure that the device at the far end of the link is on and operating correctly.
- Ensure that all connectors on the cable are correctly engaged.
- Ensure that the cabling installation conforms to the Category 5 standard. A white paper which describes this standard is available from the 3Com web site.

For more general problem solving information, refer to the documentation supplied with your Switch.

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TECHNICAL SPECIFICATIONS

Operating Temperature	0 to 50°C (32 to 122°F)
Operating Humidity	10 to 95% non-condensing
Power Consumption	15W maximum
Safety Standards	■ UL 1950 ■ EN 60950 ■ CSA 22.2#950 ■ IEC 60950
Electromagnetic Compatibility	CISPR 22 Class A* EN55022 Class A* AS/NZS 3548 Class A* FCC Part 15 Subpart B Class A ICES-003 Class A VCCI Class A* CNS 13438 Class A Korean EMC Approval Class A EN55024

*Category 5 screened or unscreened cables must be used to ensure compliance with the Class A requirements of these standards.

ELECTROMAGNETIC COMPATIBILITY STATEMENTS

FCC Statement

This equipment has been tested with a class A computing device and has been found to comply with part 15 of FCC Rules. Operation in a residential area may cause unacceptable interference to radio and TV receptions, requiring the operator to take whatever steps are necessary to correct the interference.

CSA Statement

This Class A digital apparatus meets all requirements of the Canadian interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

VCCI Statement

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

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警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Information To The User

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment with respect to the receiver.
- Move the equipment away from the receiver.

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
How to Identify and Resolve Radio-TV Interference Problems

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

In order to meet FCC emissions limits, this equipment must be used only with cables which comply with IEEE 802.3.

Europe

This product complies with the European Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC as amended by the European Directive 93/68/EEC.

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Limited Warranty

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Lifetime

3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, 3Com may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. 3Com warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

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ADDITIONAL SUPPORT: *Telephone Support*: This SuperStack product comes with telephone technical support for ninety (90) days. The ninety (90) day period begins on the date of Customer's product purchase.

The telephone technical support is available from 3Com from 9 a.m. to 5 p.m., local time, Monday through Friday, excluding local holidays. Telephone technical support is limited to the 3Com products designated above and may include assistance with installation, product-specific configuration and identification of equipment problems. Response to requests for telephone technical support will be in the form of a return call from a 3Com representative by close of business on the *following* business day.

To qualify for this 90 days of telephone technical support, you must register on the 3Com Web site at:
`http://support.3Com.com/index.htm`
and provide your date of purchase, product number, and serial number. 3Com reserves the right to modify or cancel this telephone support offering at any time, without advance notice. This offer is not available where prohibited or restricted by law.

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GOVERNING LAW: This Limited Warranty shall be governed by the laws of the state of California.

3Com Corporation, 5400 Bayfront Plaza, Santa Clara, CA 95052-8145 U.S.A. Tel: 1 (408) 326-5000

Technical Support

The following numbers may be used for technical support:

Country	Telephone Number	Country	Telephone Number	Country	Telephone Number
Asia, Pacific Rim				**Latin America**	
Australia	1 800 678 515	P.R. of China	10800 61 00137 or	Argentina	AT&T +800 666 5065
Hong Kong	800 933 486		021 6350 1590	Brazil	0800 13 3266
India	+61 2 9937 5085	Singapore	800 6161 463	Chile	1230 020 0645
Indonesia	001 800 61 009	S. Korea:		Colombia	98012 2127
Japan	0031 61 6439	From anywhere in		Mexico	01 800 CARE (01 800 2273)
Malaysia	1800 801 777	S. Korea:	00798 611 2230	Peru	AT&T +800 666 5065
New Zealand	0800 446 398	From Seoul:	(0)2 3455 6455	Puerto Rico	800 666 5065
Pakistan	+61 2 9937 5085	Taiwan, R.O.C.	0080 611 261	Venezuela	AT&T +800 666 5065
Philippines	1235 61 266 2602	Thailand	001 800 611 2000		
Europe					
From anywhere in Europe, call:	+31 (0)30 6029900 phone +31 (0)30 6029999 fax				
Europe, South Africa, and Middle East	From the following countries, you may use the following toll-free numbers:				
Austria	0800 297468	Hungary	00800 12813	Poland	00800 3111206
Belgium	0800 71429	Ireland	1800 553117	Portugal	0800 831416
Denmark	800 17309	Israel	1800 9453794	South Africa	0800 995014
Finland	0800 113153	Italy	1678 79489	Spain	900 983125
France	0800 917959	Netherlands	0800 0227788	Sweden	020 795482
Germany	0800 1821502	Norway	800 11376	Switzerland	0800 55 3072
				U.K.	0800 966197
North America	1 800 876-3266				

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General Environmental Statement

It is the policy of 3Com Corporation to be environmentally-friendly in all operations. To uphold our policy, we are committed to:

- Establishing environmental performance standards that comply with national legislation and regulations
- Conserving energy, materials and natural resources in all operations
- Reducing the waste generated by all operations
- Ensuring that all waste conforms to recognized environmental standards
- Maximizing the recyclable and reusable content of all products
- Ensuring that all products can be recycled, reused and disposed of safely
- Ensuring that all products are labelled according to recognized environmental standards
- Improving our environmental record on a continual basis

End Of Life Statement

3Com processes allow for the recovery, reclamation and safe disposal of all end-of-life electronic components.

Regulated Materials Statement

3Com products do not contain any hazardous or ozone-depleting material.

Environmental Statement about the Documentation

The documentation for this product is printed on paper that comes from sustainable, managed forests; it is fully biodegradable and recyclable, and is completely chlorine-free. The varnish is environmentally-friendly, and the inks are vegetable-based with a low heavy-metal content.

Environmental Statement about the Product Packaging

The packaging for this product is fully recyclable. It has a recycled (post consumer) waste content of at least 40% by weight, and no heavy-metal content.

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For information on Year 2000 compliance and 3Com products, visit the 3Com Year 2000 Web page:
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Please include the following information when commenting: the document title, part number, and page number, if appropriate.

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